

Amendments to the Specification:

After the title of the application please insert the following heading and paragraph:

CROSS REFERENCE TO RELATED APPLICATION

The present application is related to and claims priority of the PCT application number PCT/CH02/00497 of Sentron AG entitled Magnetic field sensor with a Hall element, filed on September 10, 2002, the disclosure of which is incorporated by reference.

Please amend paragraph [0001] as follows:

FIELD OF THE INVENTION

The invention concerns a magnetic field sensor with a symmetrical vertical Hall element of the type named in the preamble of claim 1.

Before paragraph [0002] please insert the following heading:

BACKGROUND OF THE INVENTION

Please delete paragraph [0008].

Please amend paragraph [0016] as follows:

~~In the following, Various~~ embodiments of the invention are explained in more detail ~~below~~ based on the drawings. The figures ~~shown in the drawings~~ are not drawn to scale.

Please insert the following heading before paragraph [0017]:

BRIEF DESCRIPTION OF THE DRAWINGS

Please amend paragraphs [0017-0024] as follows:

[0017] ~~It is shown in:~~ Fig. 1 shows a cross-section of a symmetrical vertical Hall element,

[0018] Fig. 2 shows a plan view of the symmetrical vertical Hall element,

[0019] Fig. 3 shows an equivalent circuit diagram for the symmetrical vertical Hall element,

- [0020] Fig. 4 shows a symmetrical vertical Hall element with an integrated resistor,
- [0021] Fig. 5 shows a symmetrical vertical Hall element with two integrated resistors,
- [0022] Fig. 6 shows a symmetrical vertical Hall element with additional electrodes,
- [0023] Fig. 7 shows a mask that, on the implantation of ions, is used for the formation of an N-type well, and
- [0024] Figs. 8, 9 show two anti-parallel connected Hall elements.

Before paragraph [0025] please insert the following heading:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS